New Bedford Harbor Superfund Site

Jacobs Engineering Comments on the Phase III

Remedial Action Plan—RTN 4-601, Former Aerovox

Facility, New Bedford, MA dated June 2017



Alternative OU-3-9, the preferred alternative, is described as excavation of all soils to peat within 25 ft of the shoreline and to bedrock in the northeast corner. The alternative also includes an engineered barrier for all soils above UCLs in the top 15 ft, conducting in situ treatment of hot spot soils, staging contaminated soils on-site, building low permeable barriers along north and south boundaries, and installing a permeable reactive barrier on the shoreline. We have the following questions/comments:

## **General Comments:**

- The permeable reactive barrier on the shoreline will be in jeopardy pending a decision on the remedial action by EPA in New Bedford Harbor. A PRB will be unprotected and any excavation or construction on the harbor side will likely damage the barrier, reducing or eliminating its total effectiveness. The implementability of this alternative should be addressed in regard to its role as the boundary between the AVX and the EPA remedial actions.
- While excavation of soils as described in Alternative OU3-9 will remove the major contaminated soils along the boundary, the results of the soil characterization of MW-15D show that considerable quantities of PCBs could be found under the peat layer and in the deeper portions of the outwash and glacial till. Leaving this material in place could jeopardize the Harbor by mass transport of DNAPL gravimetrically or by erosion into the Harbor. Is there anything in the preferred alternative to address the potential for soils sloughing into the Harbor as a result of the wear and tear on the PRB and the reconstructed shoreline?
- 3) Alternative OU3-9 calls for excavation of northeast corner soils to bedrock to address the deep contaminated soils above the till as represented by MW-15D. Does this excavation include the highly contaminated soils in MIP-53 and MIP-54 that are currently north of the present sheet pile wall? It is not clear from Figure 4.3.3-9 if this is an excavation to bottom of peat or top of bedrock.
- 4) The last paragraph of Section 2.4.1 states that the sheet pile wall will not be included as part of the final Aerovox remedial alternative. What is the disposition of the sheet pile wall in the design of preferred Alternative OU3-9? The third paragraph on page 2-6 states that the sheet pile wall will be removed. Based on the production of sheen during the intermediate removal actions, what precautions will be placed on mitigating transport of contaminants into the Harbor during the removal of this barrier?
- 5) The hydraulic conductivity reported in the Phase II CSA for bedrock is comparable to a well graded sand (34.9 ft/day-page 2-11). This affects the modeling of each of the alternatives and it is our contention that the bedrock regime is not as open as modeled. This would in turn, limit the flux of contaminants from the bedrock through the sediments into the Harbor. This would underestimate the pore water concentration in the sediment. While it is possible that the original estimate is conservative, the assumption that the bedrock layer is porous is probably not realistic in regard to discharge of contaminants to the Harbor. Please consider re-evaluating the hydraulic conductivity of the upper bedrock layer.
- 6) Based on the estimates in the last paragraph of Section 2.4.5.1 (page 2-15), approximately 53 percent of the PCB mass will be addressed in Alternative OU3-9 by removal of all soils 0-25 ft from the shoreline and from the surface to the bottom of the peat layer. However, these soils will be staged on site and therefore will not be removed but managed. Therefore, all of the remaining mass of PCBs from the Aerovox site will remain on site, but just pose a less immediate threat to the Harbor. This should be addressed as this would not be considered a permanent solution and should be graded accordingly.
- 7) The text states that "Groundwater modeling indicates that pumping at the required rates to create hydraulic capture would draw contamination down from the overburden soils into bedrock fractures complicating subsequent removal." (Section 4.1.2.1, pg 4-4). It is difficult to envision pumping rates that pull contaminants from the upper layers and subsequently push contaminants into the bedrock fractures. If the

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bedrock is as open as modeled, this should not be a problem. Please reconsider the hydraulic conductivities used in the model for the upper bedrock layer.

8) The first paragraph of Section 5.3.3 (pg 5-10) states, "Thus none of these factors are differentiators. Rather, a point was given to those alternatives which provide a hard vertical barrier wall along the shoreline since this would provide the EPA cleanup (whenever and however it occurs) with a definitive, solid structural surface along the former Aerovox facility shoreline." It appears that the selection of a preferred alternative gave a modicum of consideration for implementability in its evaluation of compatability with any EPA remedial action. In turn, this preferred alternative will limit the alternatives that the EPA may consider for addressing the contamination in the Harbor adjacent to the Aerovox property. There are limited options for remediating the contamination in the Harbor and not severely impacting the effectiveness of the Aerovox preferred alternative. Please consider this in the scoring of these alternatives.